

Belemnoteuthis appears to have been calcareous, like that of the *Sepia*. In all essential points of structure the *Belemnoteuthis* is

- 1, 3. Detached hooks (*natural size*).
2. Three hooks with attached horny rings: from a specimen in the possession of Mr. Cunningham.
4. Part of one of the arms, showing four hooked spines.
5. Transverse section of the distal part of the osselet of *Belemnoteuthis*, exposing the apex of the chambered shell in the centre, surrounded by the radiated osselet, *a*: (*magnified four diameters*).

Fig. 4.



Horny rings and hooks of *Belemnoteuthis antiquus*.

related to the Calamaries, but the lateral position of the fins, the presence of a chambered shell or phragmocone, and the peculiar character of the tentacles, establish it as a peculiar type. The distinction between the *Belemnites* and *Belemnoteuthis* is too obvious to demand further notice; no one, I presume, will again mistake an osselet of the latter for the phragmocone of the former detached from the alveolus of its guard: and I would fain hope that this attempt to elucidate an important palæontological question, will not again subject me to the imputation of unamiable motives.

I have the honour to be, Gentlemen, your faithful servant,
 Chester Square, Pimlico, GIDEON ALGERNON MANTELL.
 June 1852.

III.—On a supposed new species of *Eleocharis*. By CHARLES C. BABINGTON, M.A., F.R.S. &c.*

My attention has been recently directed by Mr. H. C. Watson to the British species of *Eleocharis*, and, having been led to concur with him in the idea that there is an undescribed plant belonging to that genus which inhabits the western coast of Scotland, I purpose pointing out in this paper the respects in which it differs from our known species included in the genus, and adding a few remarks upon them.

In the autumn of the year 1844, I had the pleasure of accompanying Professor Balfour of Edinburgh in a tour through the district of Cantyre in Argyleshire. At Tayanloan, on the western coast of that peninsula, he gathered two or three specimens of the plant upon which this paper is founded, but did not observe its difference from *Scirpus pauciflorus*, in company with which it

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was growing, owing to the similarity of their outward appearance. Doubtless plenty of it might have been obtained if it had been looked for.

To Mr. Watson we are indebted for the knowledge of this new species, as he received two small specimens from Dr. Balfour, and forwarded the fruit of one of them to me, with a request that I would endeavour to ascertain its identity with any known species. Through the liberality of Dr. Balfour I have had an opportunity of examining all the plants belonging to this group which are contained in his herbarium, but have only succeeded in finding one additional specimen of the Tayanloan plant; for the permission to retain a portion of it I am much indebted to him.

The similarity in outward appearance of the species included in the groups named *Eleocharis* and *Bæothryon* renders it necessary to pay close attention to the structure and form of their several parts: thus the form of the mouth of the sheaths which surround the base of the stem, the form of the nut, that of the base of the style and of the outer glume, and the length of the hypogynous bristles, have been carefully examined, and found to afford distinctive characters when the more conspicuous organs do not present any describable or constant differences.

I propose the following as a provisional name and character for the plant, as I have totally failed in finding any described species to which it can be referred. The name is given in commemoration of the gentleman to whose acuteness of observation we owe its discovery, and who deserves so well of botanists from his researches concerning the geographical distribution of plants.

Eleocharis Watsoni; spicis terminalibus solitariis oblongis, glumis acutis (?) infima obtusiuscula basin spicæ circumcingente, stylo bifido, achenio utrinque convexo oblongo obtusissimo basi paululum attenuato angulis rotundatis tenuissime punctato-striato, basi styli persistente late depresso, setis hypogynis 4-6 achenio brevioribus, culmis basi vaginatis, vagina abrupte truncata.

Radix ignota. Squamæ radicales latæ, obtusæ, rubescentes. Culmi 3-4 unciales, tenuissime striati, erecti, nudi, tenues, basi vagina viridi inferne rufescente superne fusco-marginata circumdati. Setæ hypogynæ breves, retrorsum hispidae, achenio dimidio breviores.

Hab. in palustribus maritimis prope "Tayanloan" in com. "Argyle" Scotiæ.

It might be allowable to stop here, but I think it desirable to add a few remarks concerning the differences between this and the allied plants.

1. The lowest glume is larger than the others, and surrounds the base of the spike in *E. uniglumis*, *E. Watsoni* and *E. multicaulis*, but does not do so, and is not larger than the others in *E. palustris*.

2. The stigmas are two in all except *E. multicaulis*, which possesses three. They have not been seen in *E. Watsoni*, but the lenticular nut renders it nearly certain that they are two in number.

3. The nut is more or less compressed, but variable in shape, in all except *E. multicaulis*, in which it is acutely triangular and topshaped. In *E. palustris* it is roundish, with or without a slight narrowing or stalklike point at the base. In *E. uniglumis* it is pearshaped. In *E. Watsoni* it is oblong, but a little narrowed at the base. In all of them it is smooth, with the exception of *E. Watsoni*, where its surface is closely punctate-striate throughout.

4. The nut is shorter than the hypogynous bristles in *E. palustris* and *E. uniglumis*; equals them in *E. multicaulis*; and exceeds them in *E. Watsoni*.

5. The sheath surrounding the base of the stem is transversely truncate, but having a very obtuse point on one side in all except *E. multicaulis*, where the point is acute.

It is thus seen that there are very considerable differences between the several plants under consideration, and it is with them alone that *E. Watsoni* is likely to be confounded, since its generic character separates it from the group *Bæothryon*. The other European species of *Eleocharis* are *E. ovata* and *E. atropurpurea*, which form the genus *Eleogenus* of Esenbeck, where the glumes are all equally large and more densely imbricated than in the typical group of species; and *E. carniolica* and *E. acicularis* (to which our plant shows some resemblance in its short bristles), which constitute the genus *Scirpidium* of Esenbeck, where the bristles are deciduous, not persistent, as in *E. Watsoni*. The *Scirpidia* also are trigynous, and their nuts are obovate, much narrowed below and trigonous; *E. acicularis* has a ribbed and transversely striated nut, and *E. carniolica*, which closely resembles it in appearance, has short subulate leaves terminating the sheaths.

It does not seem desirable to extend this paper by discussing the distinctions between *E. Watsoni* and the North American species of *Eleocharis*; let it suffice to state that every endeavour has been made to ascertain if our plant could be identified with any of them, but that none such has been found.

It is earnestly hoped that Scottish botanists will not long allow this curious plant to continue in the dubious position of a species, founded upon so small a number of specimens as hardly to justify its separation from its allies; indeed, could it with any probability have been considered as a state of any one of them, this dissertation would not have been written.